

CITIES OF SAN CARLOS & BELMONT

FOUR CORNERS TRAFFIC STUDY



March 16, 2015

- 5:30-6:00 Open House
- 6:00-6:45 Presentation
- 6:45-7:30 Public Input

FOUR CORNERS TRAFFIC STUDY

Alameda de Las Pulgas/San Carlos Avenue Corridor Study



- Traffic Signal
- All-Way Stop
- Uncontrolled

FOUR CORNERS TRAFFIC STUDY

Scope of the Study

- Traffic circulation
- Bicycle facilities and circulation
- Pedestrian circulation and safety
- Parking
- Alternative school entrances
- Traffic control measures
- Transit
- Traffic safety

FOUR CORNERS TRAFFIC STUDY

Scope of the Study

- Evaluate existing traffic conditions
- Develop alternatives for the ADLP-San Carlos corridor
- Evaluate the alternatives traffic performance
- Work with the 2 Cities and 2 School Districts
- Gather input from the public
- Refine a preferred plan

FOUR CORNERS TRAFFIC STUDY

Data Collection & Existing Conditions

- Traffic volumes in the corridor
- Travel time
- Intersection Level of Service
- Queuing
- Traffic Control Warrants (Traffic Signal or Roundabout)

FOUR CORNERS TRAFFIC STUDY

Alameda de Las Pulgas/San Carlos Avenue Corridor Study



- Traffic Signal
- All-Way Stop
- Uncontrolled

FOUR CORNERS TRAFFIC STUDY



EXISTING TRAFFIC CONDITIONS

FOUR CORNERS TRAFFIC STUDY



FOUR CORNERS TRAFFIC STUDY – TRAFFIC SIGNALS



FOUR CORNERS TRAFFIC STUDY

Alameda De Las Pulgas & Ralston Avenue



FOUR CORNERS TRAFFIC STUDY

Access to Carlmont Village Shopping Center



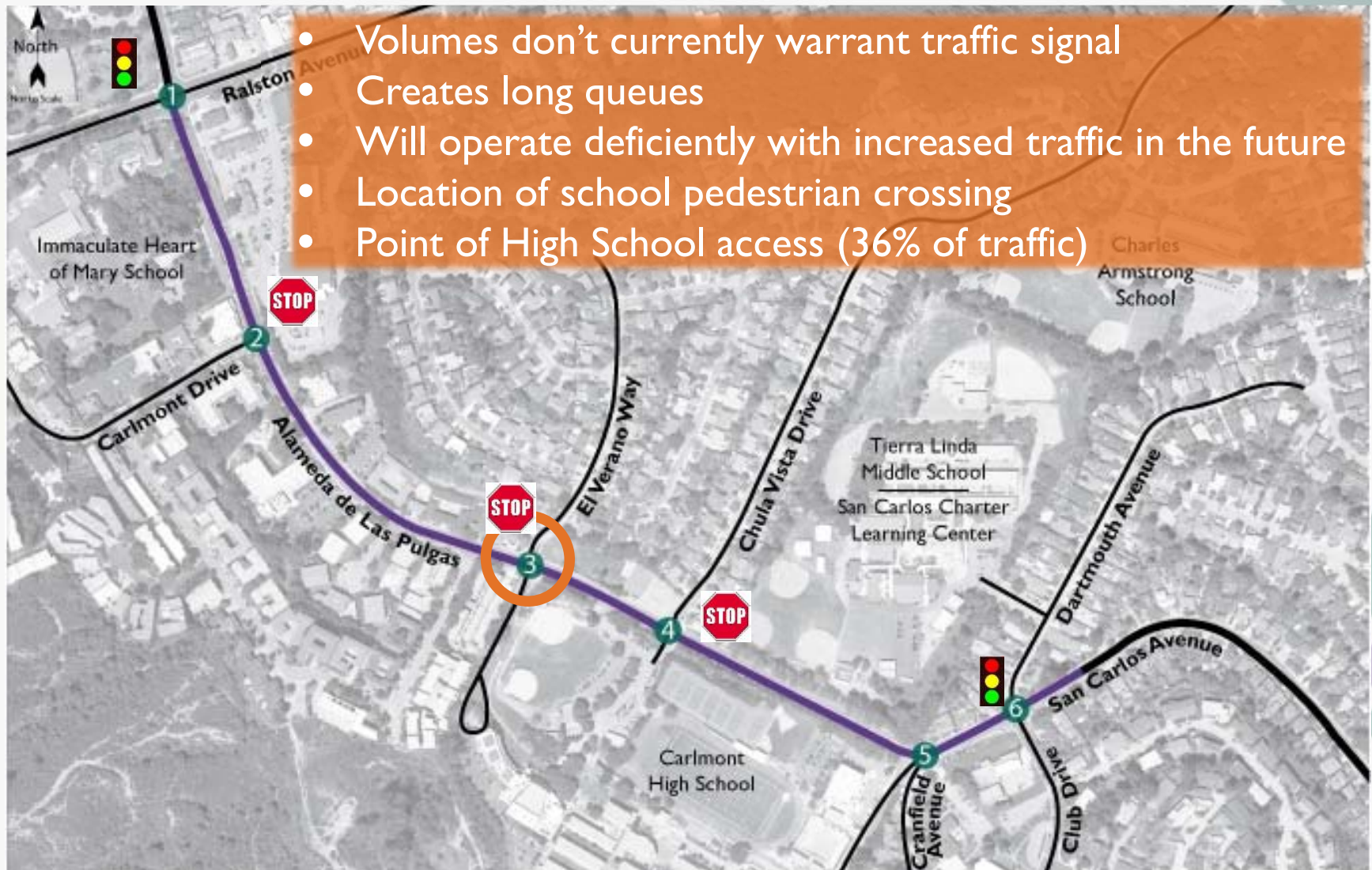
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Alameda De Las Pulgas & Carlmont Drive



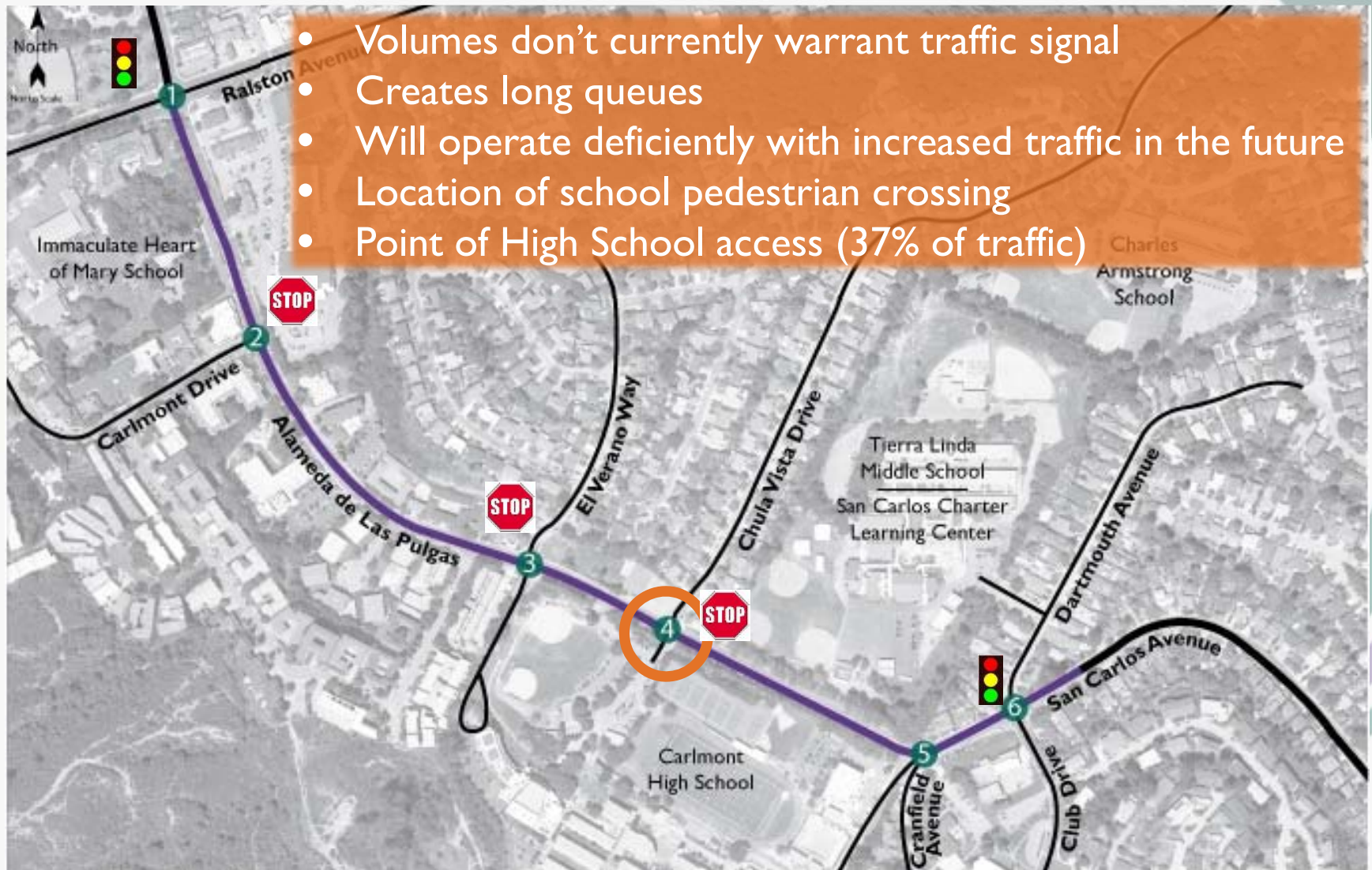
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Alameda De Las Pulgas & El Verano Way



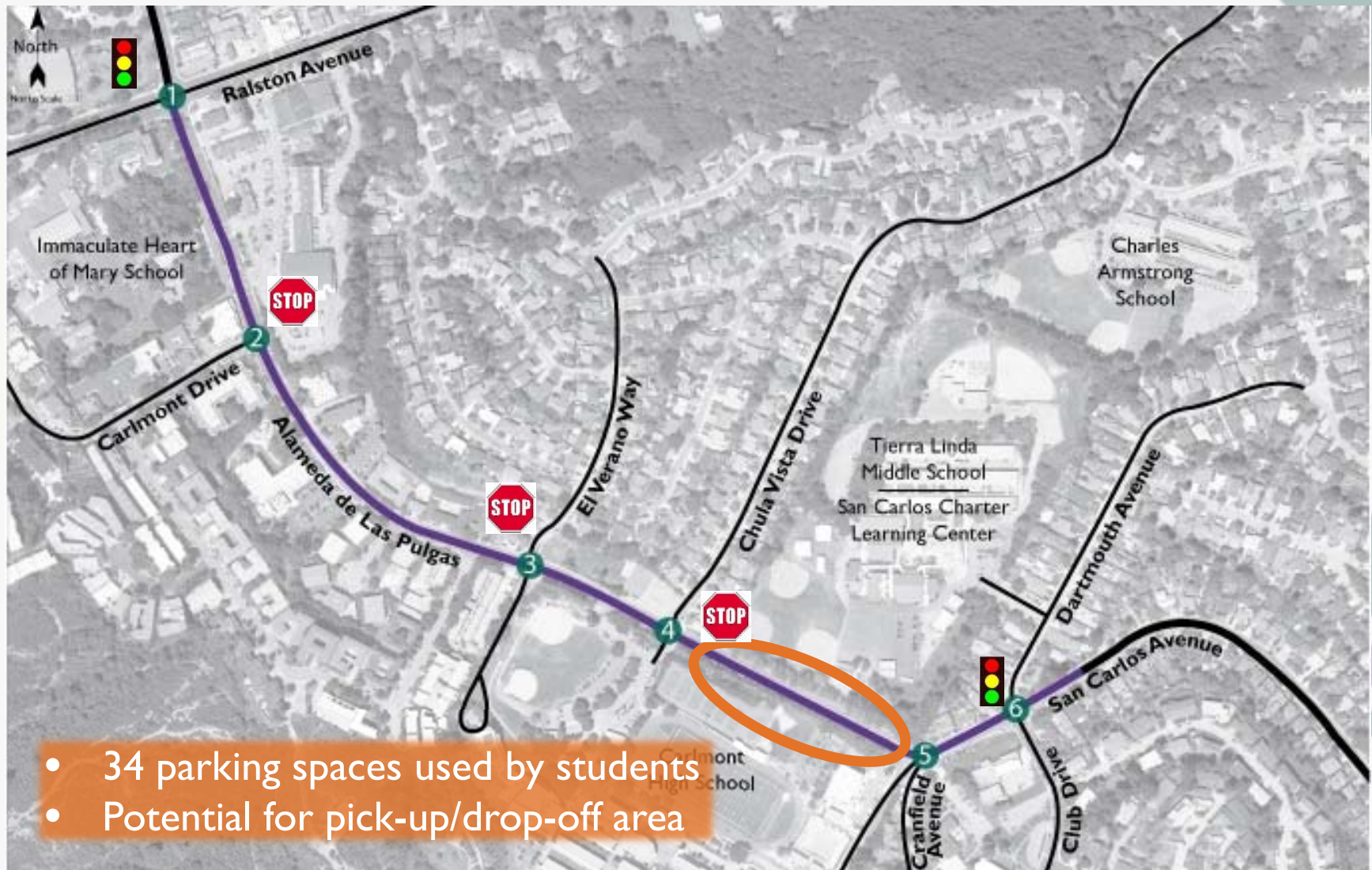
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Alameda De Las Pulgas & Chula Vista Drive



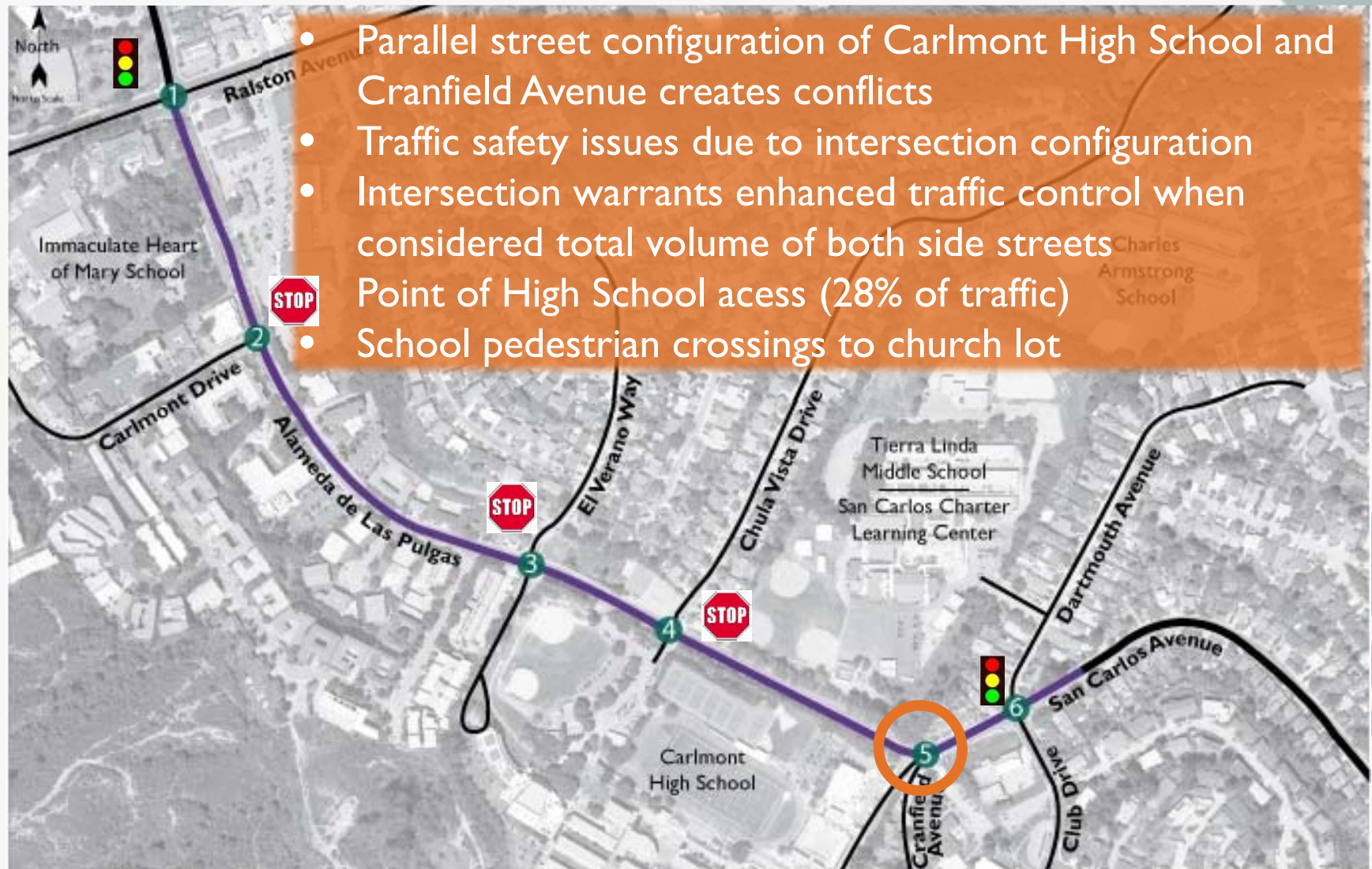
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Alameda De Las Pulgas between Chula Vista & Cranfield



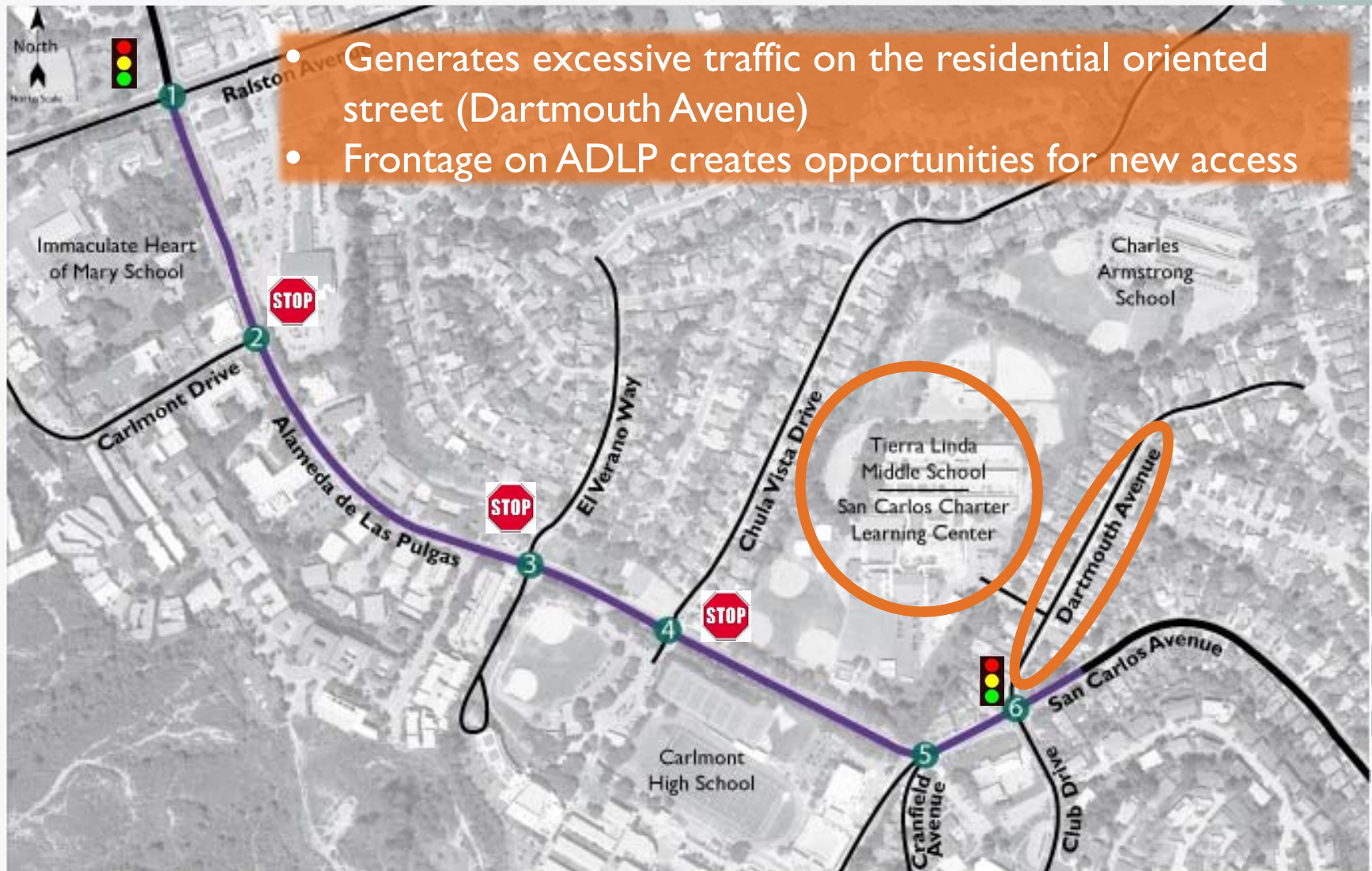
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ADLP-San Carlos Ave & Cranfield Ave-Carlmont HS



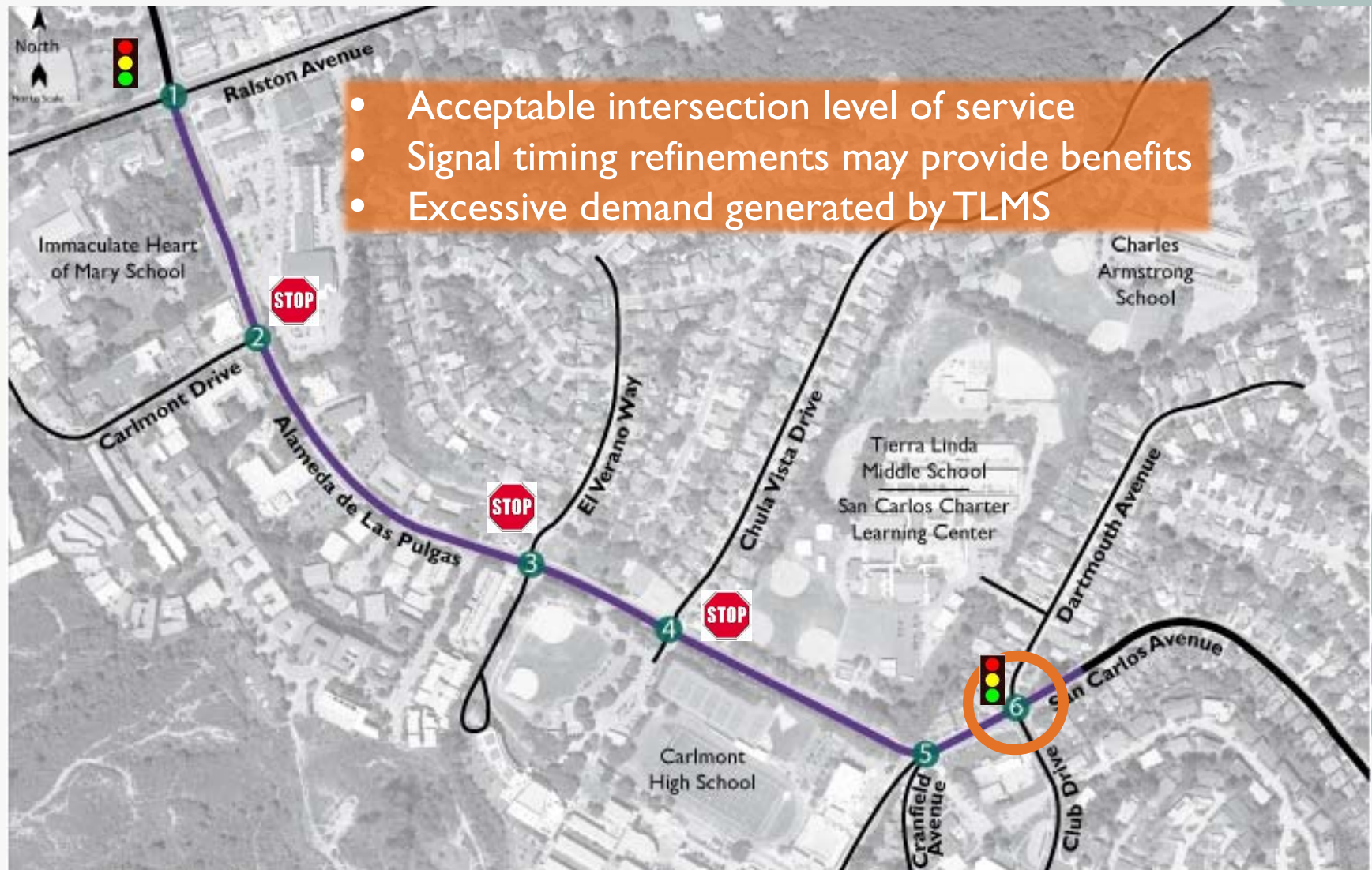
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Terra Linda Middle School



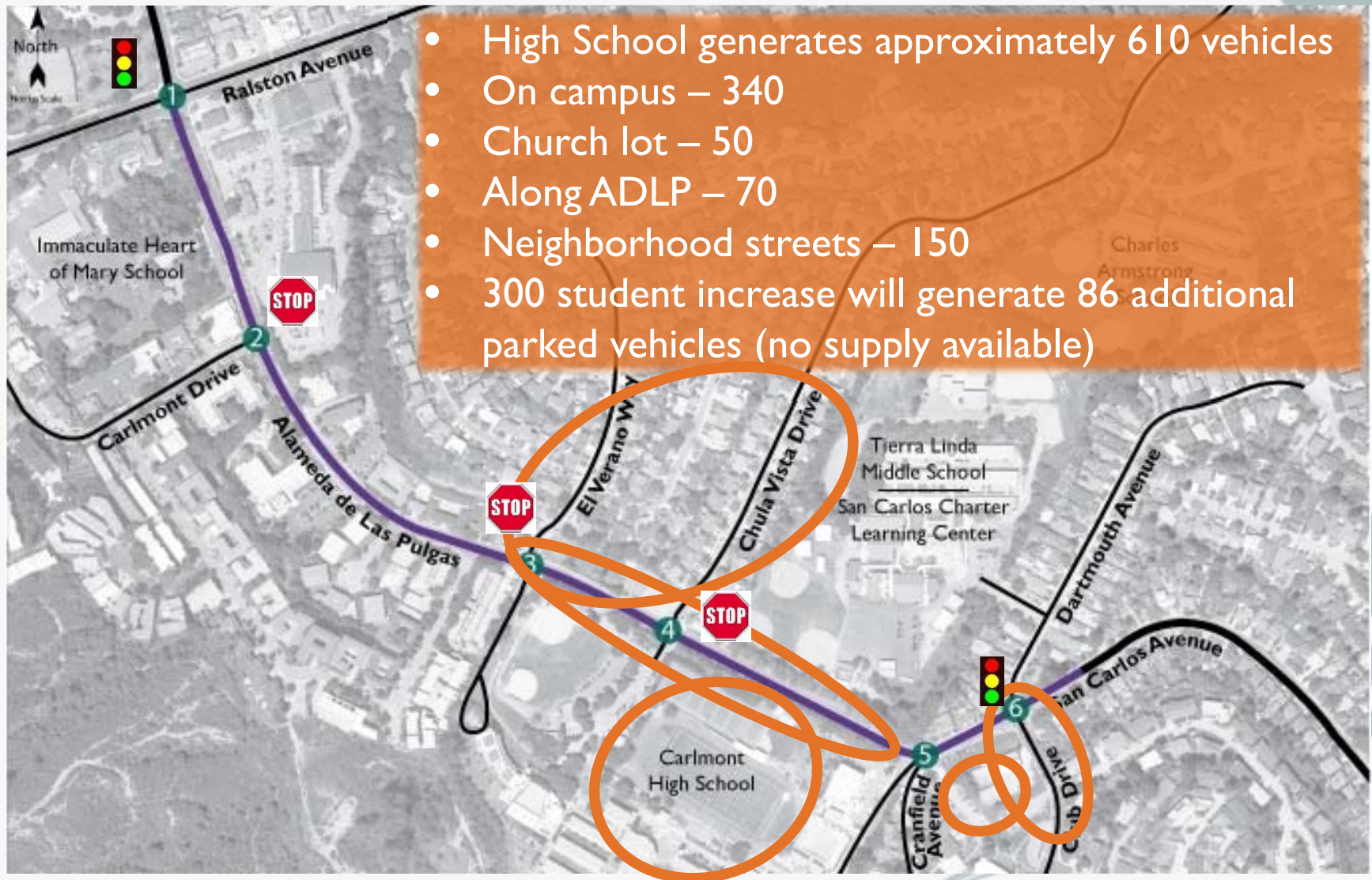
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San Carlos Avenue & Dartmouth-Club Drive



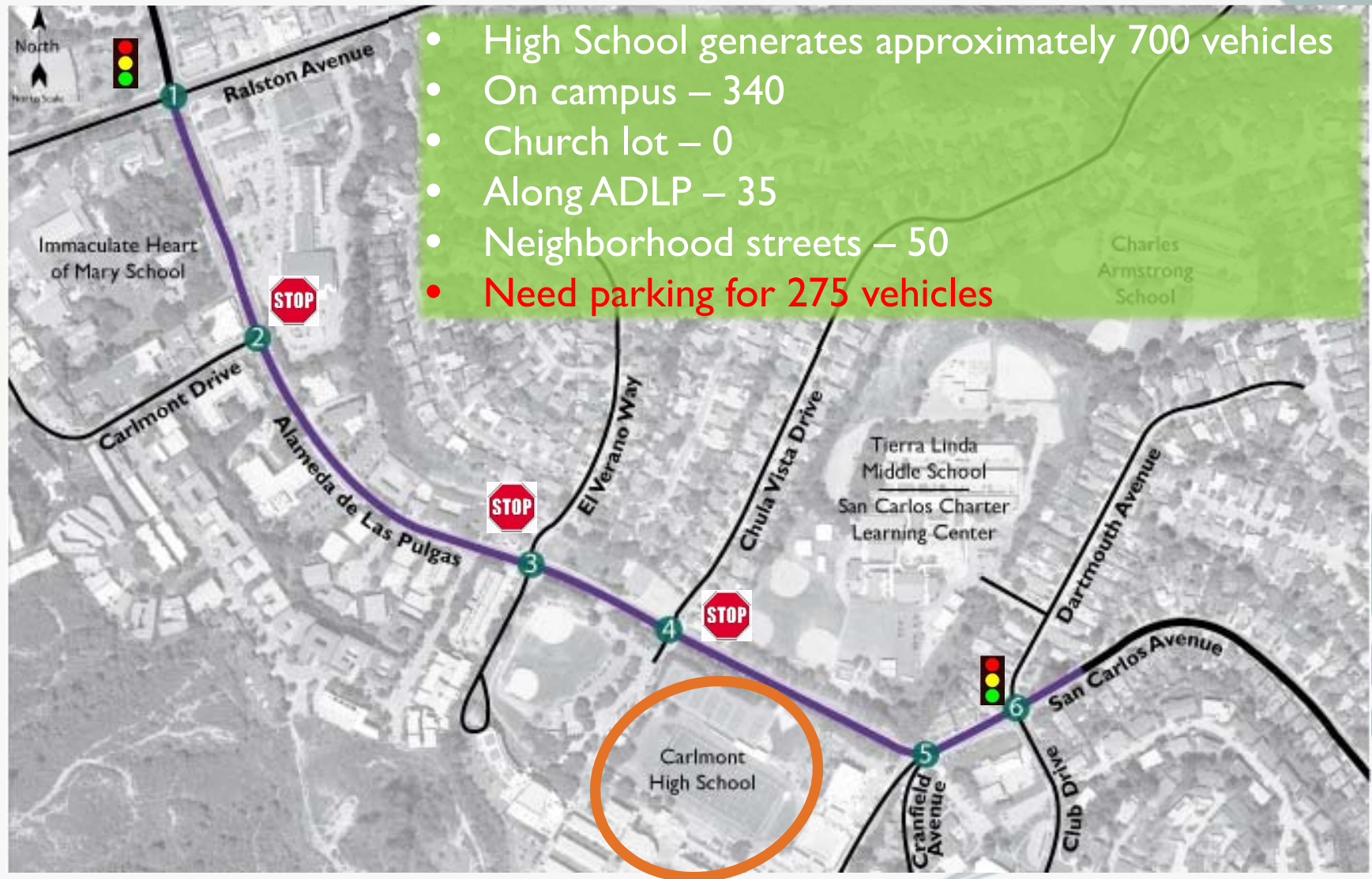
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Parking



FOUR CORNERS TRAFFIC STUDY

Parking



DID WE MISS ANYTHING ?

POTENTIAL ALTERNATIVE TRAFFIC CONTROLS

FOUR CORNERS TRAFFIC STUDY – TRAFFIC SIGNALS



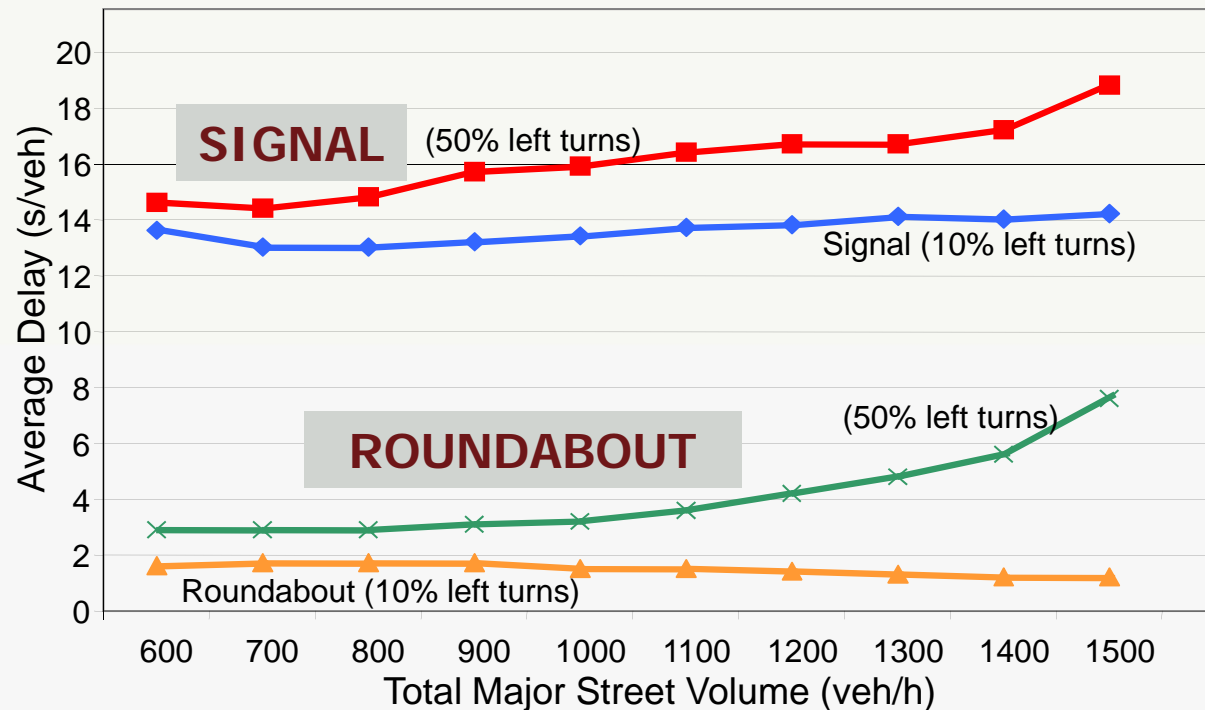
FOUR CORNERS TRAFFIC STUDY – ROUNDABOUTS



ROUNDBABOUT DESIGN

Roundabouts - Vehicle Capacity

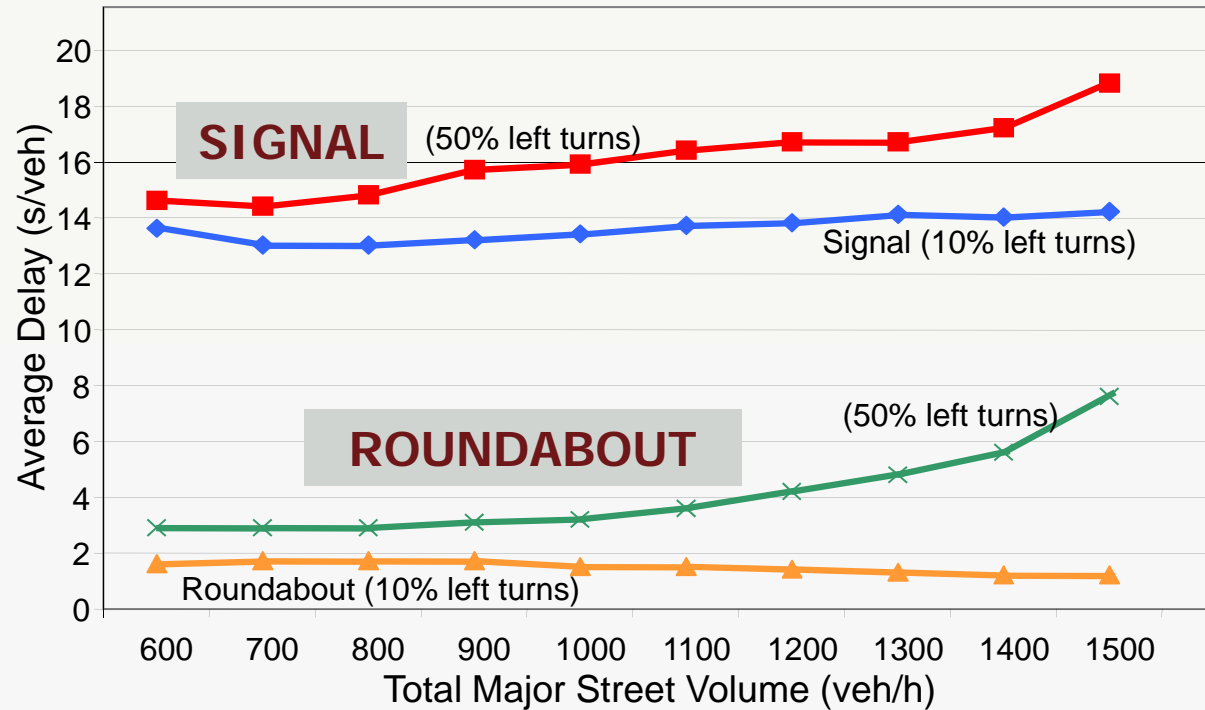
Roundabouts have higher capacities, lower delays and fewer stops per lane



ROUNDBABOUT DESIGN

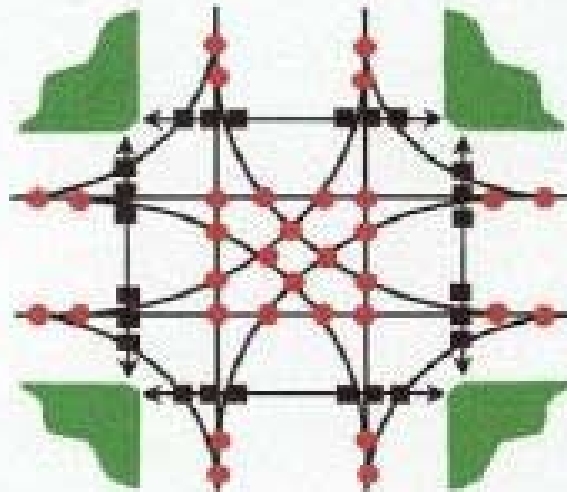
Roundabouts - Vehicle Capacity

All Way Stop

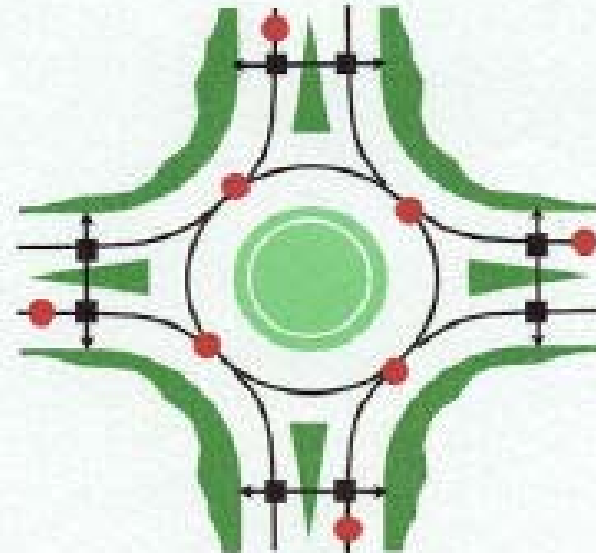


ROUNABOUT DESIGN

Roundabouts - Safety



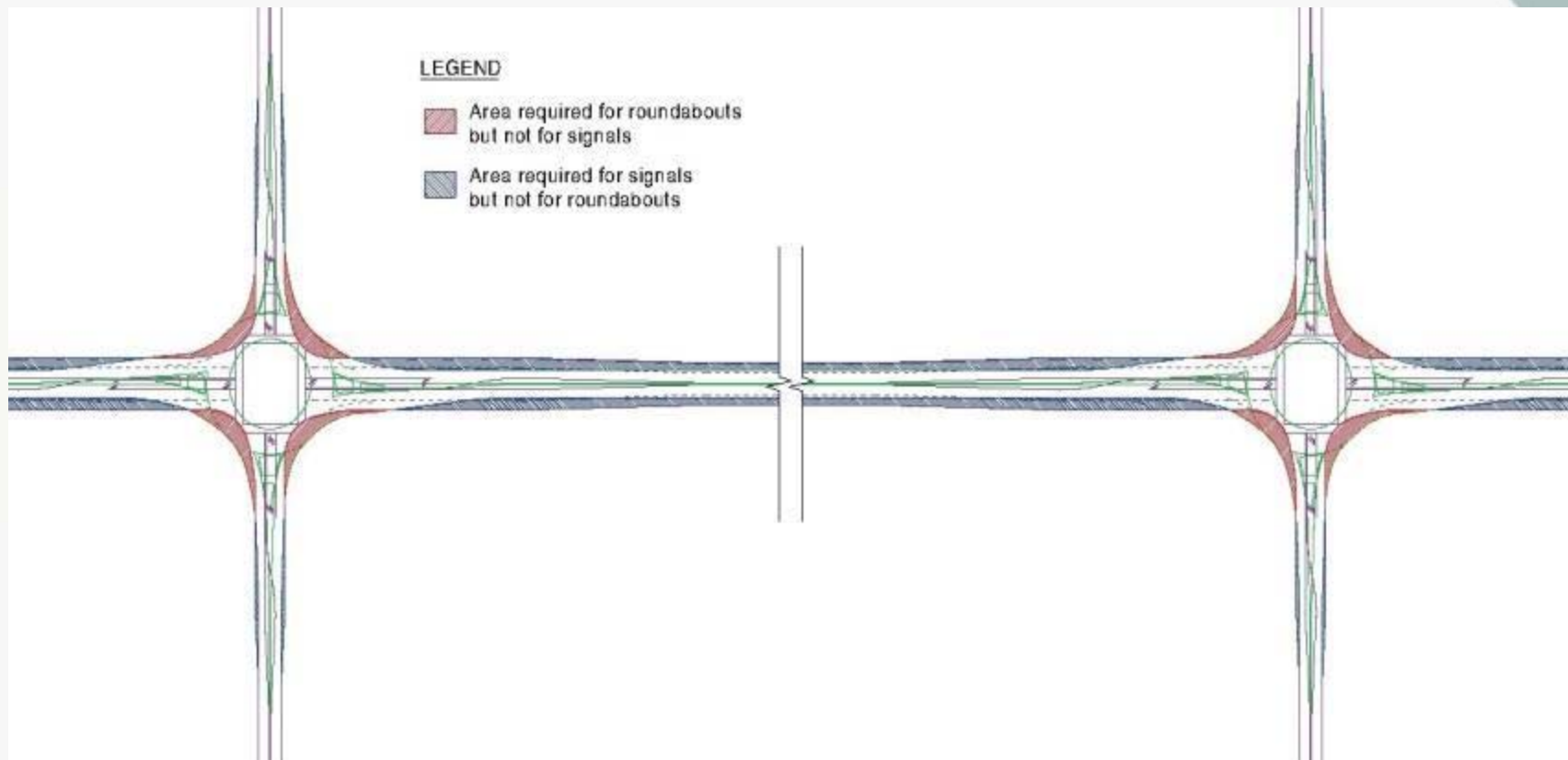
- 32 Vehicle to vehicle conflicts
- 24 Vehicle to pedestrian conflicts



- 8 Vehicle to vehicle
- 8 Vehicle to pedestrian

ROUNABOUT DESIGN

Roundabouts - Space Requirements



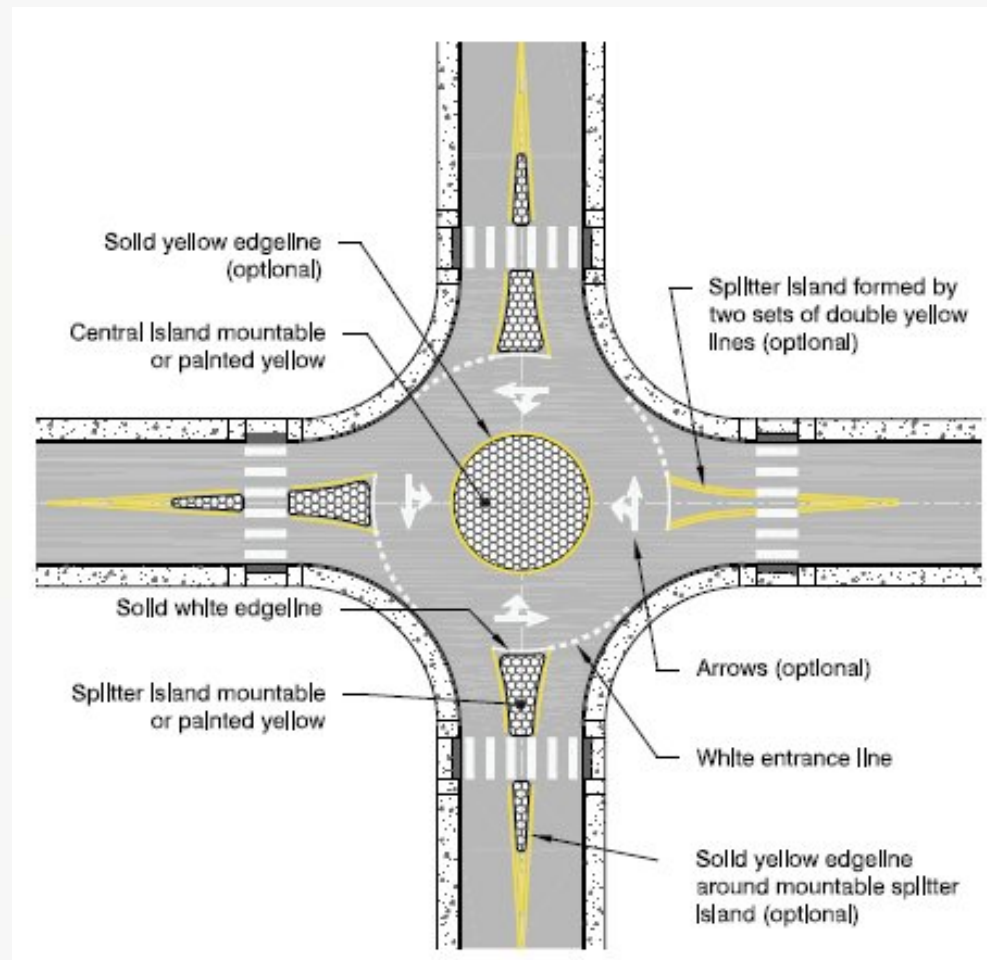
FOUR CORNERS TRAFFIC STUDY

Roundabouts



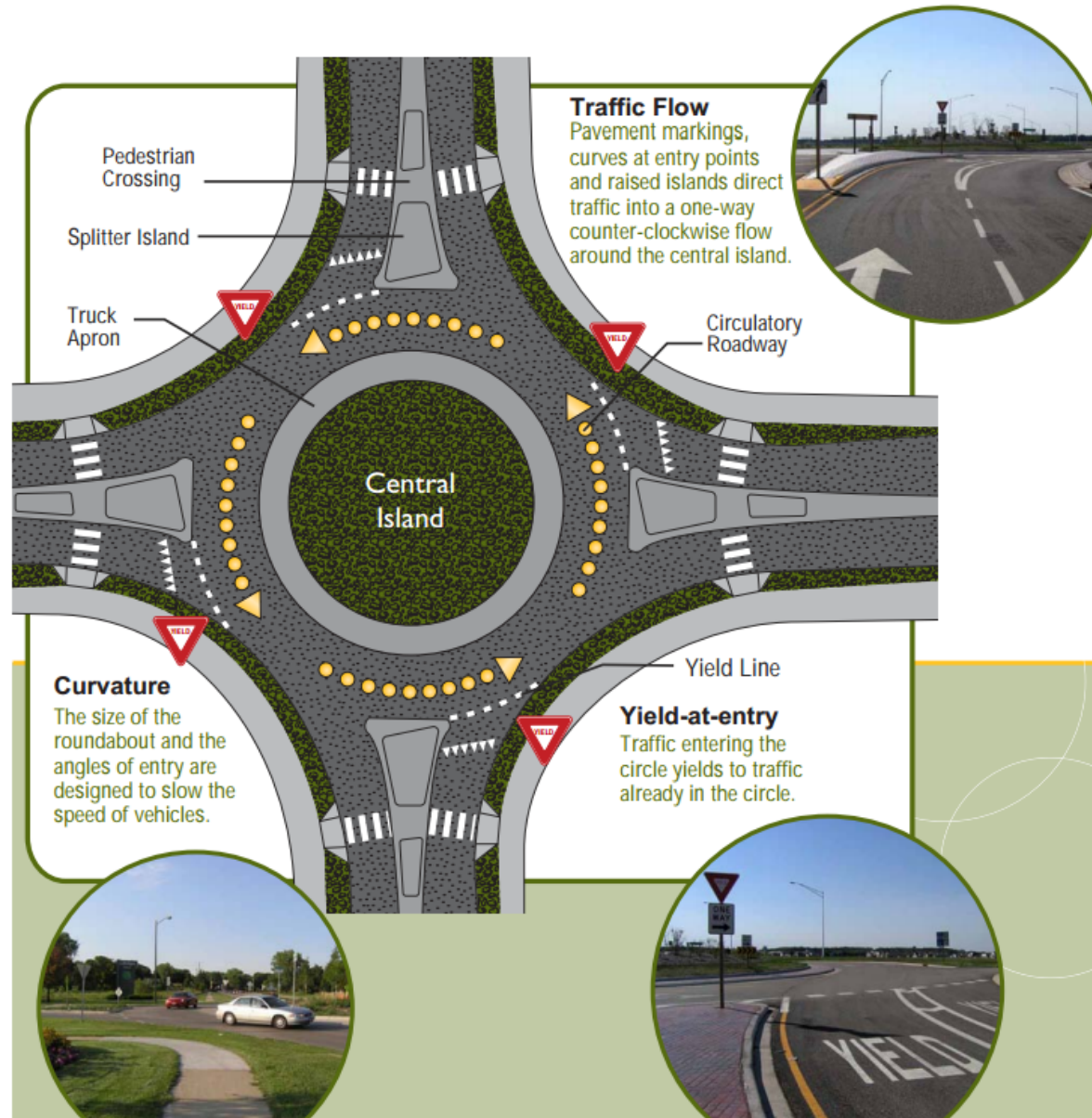
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Mini - Roundabouts



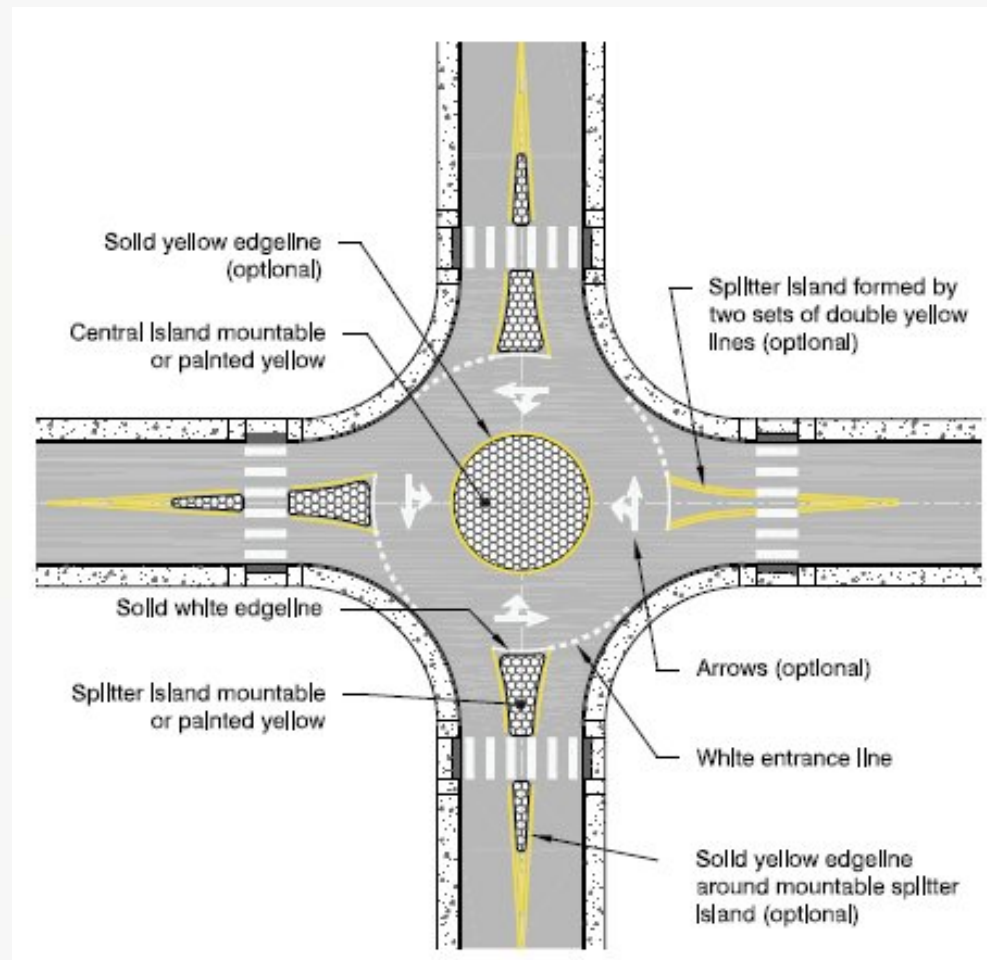
FOUR CORNERS TRAFFIC STUDY

Features of a Modern Roundabout



FOUR CORNERS TRAFFIC STUDY

Mini - Roundabouts

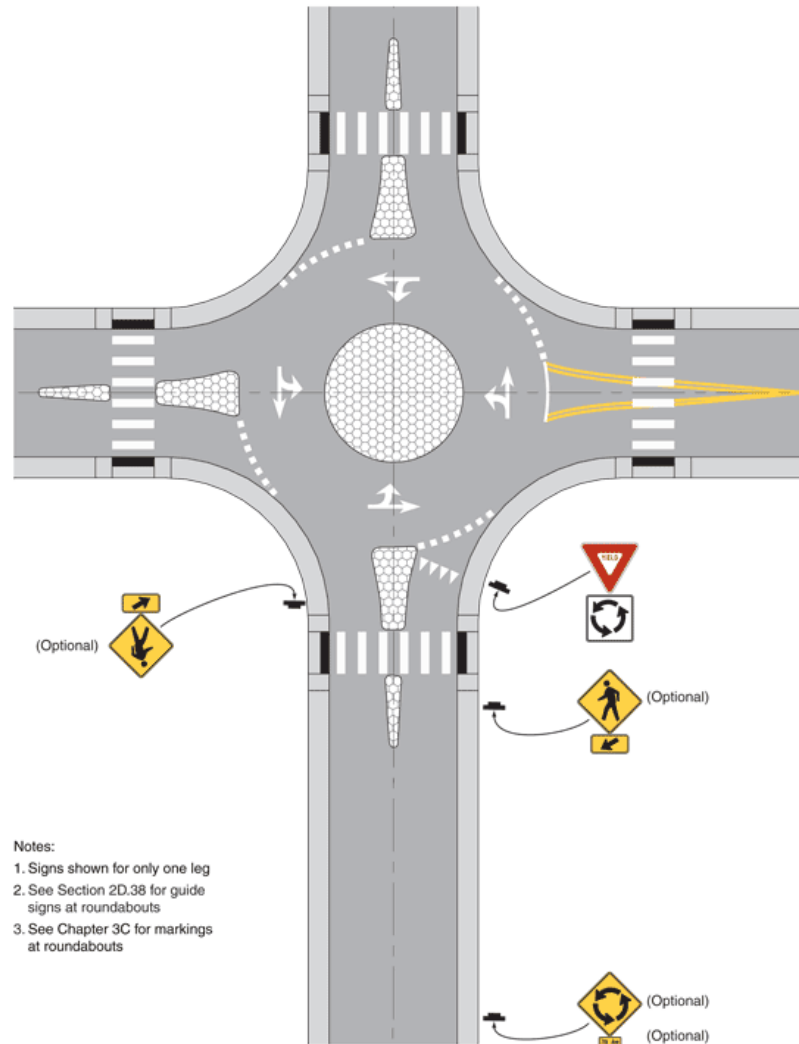


RESIDENTIAL TRAFFIC CIRCLE



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Figure 2B-21. Example of Regulatory and Warning Signs for a Mini-Roundabout



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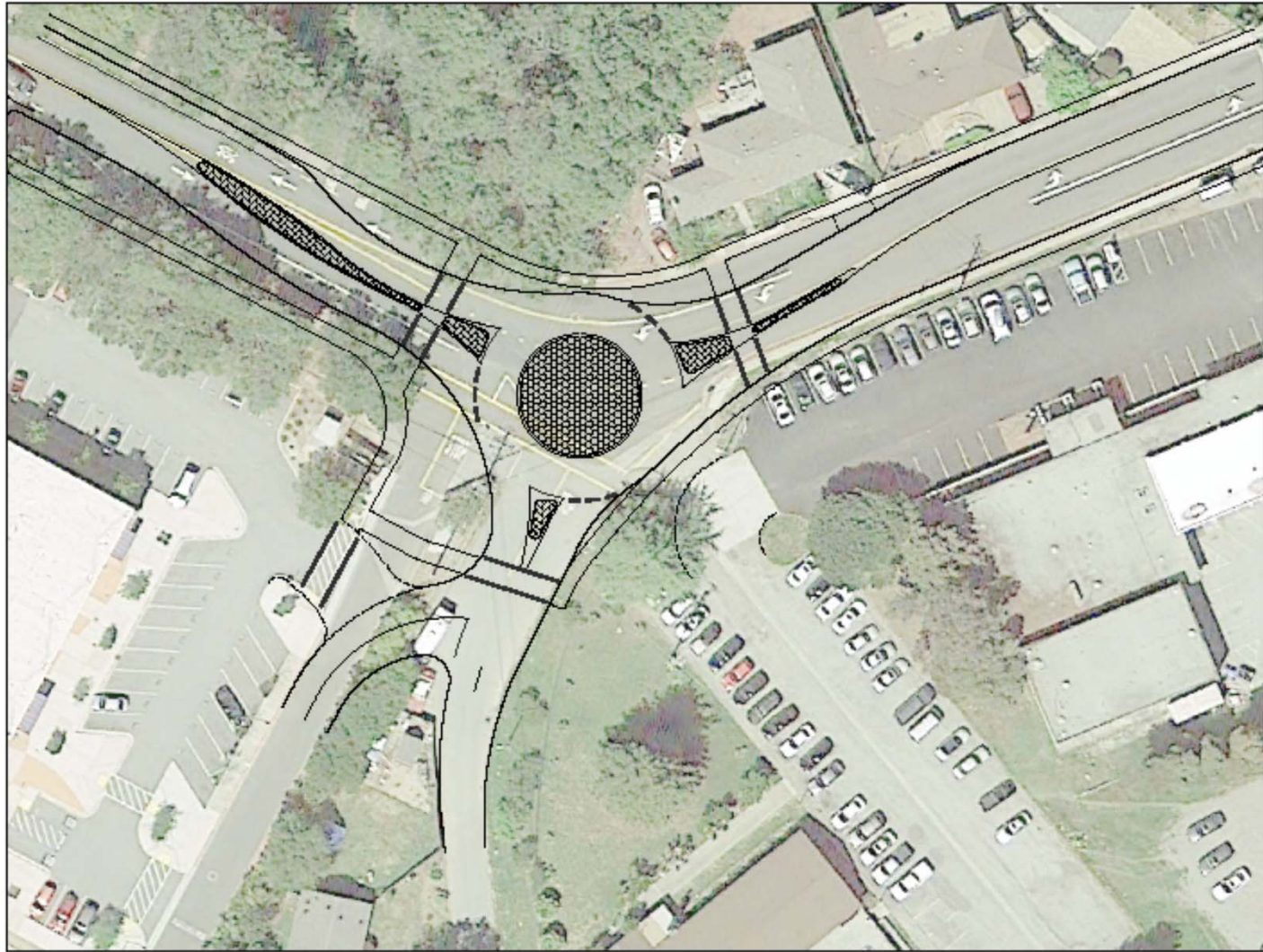
Mini - Roundabouts



FOUR CORNERS TRAFFIC STUDY

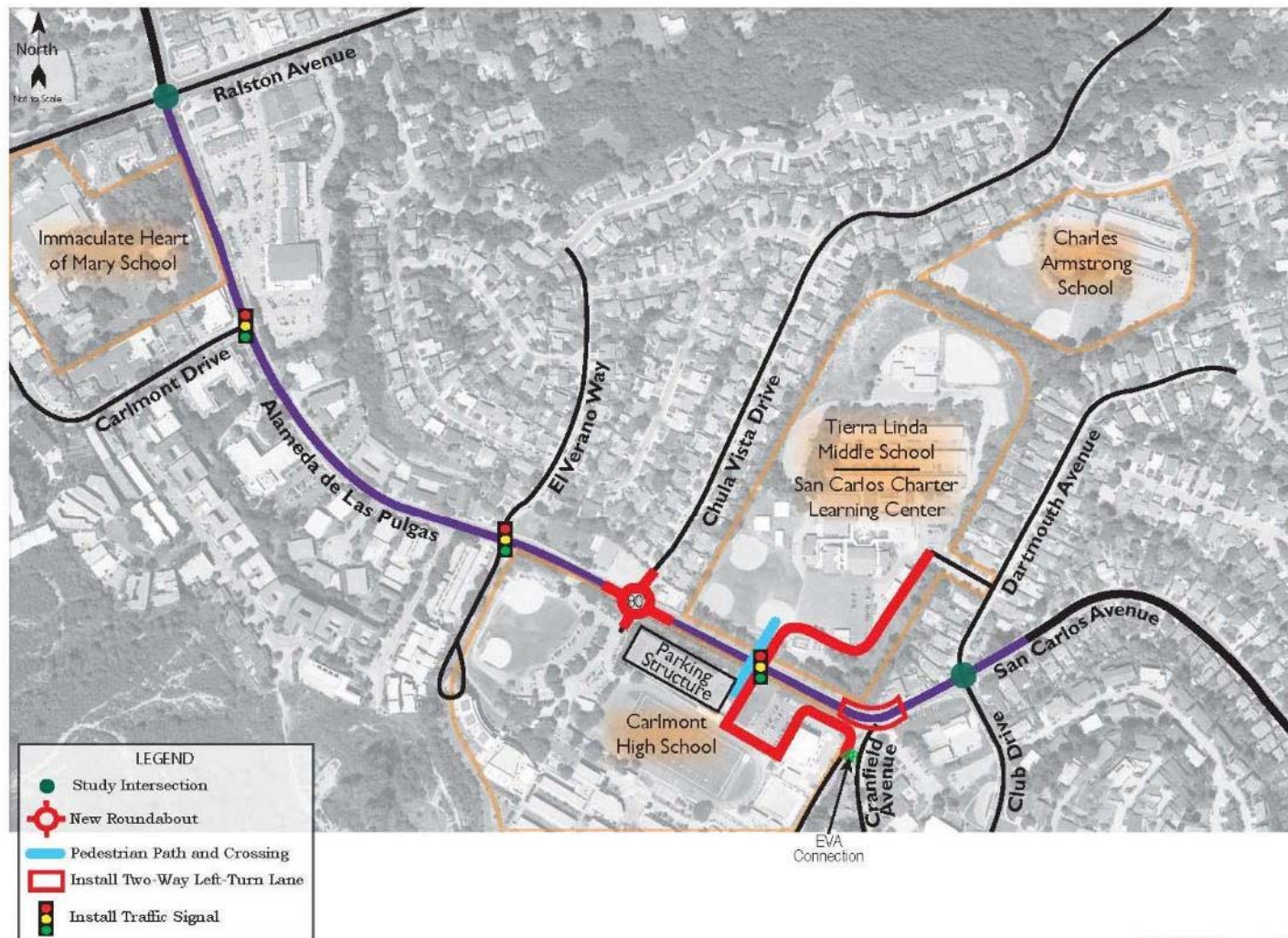


FOUR CORNERS TRAFFIC STUDY – ROUNDABOUTS



ALTERNATIVES

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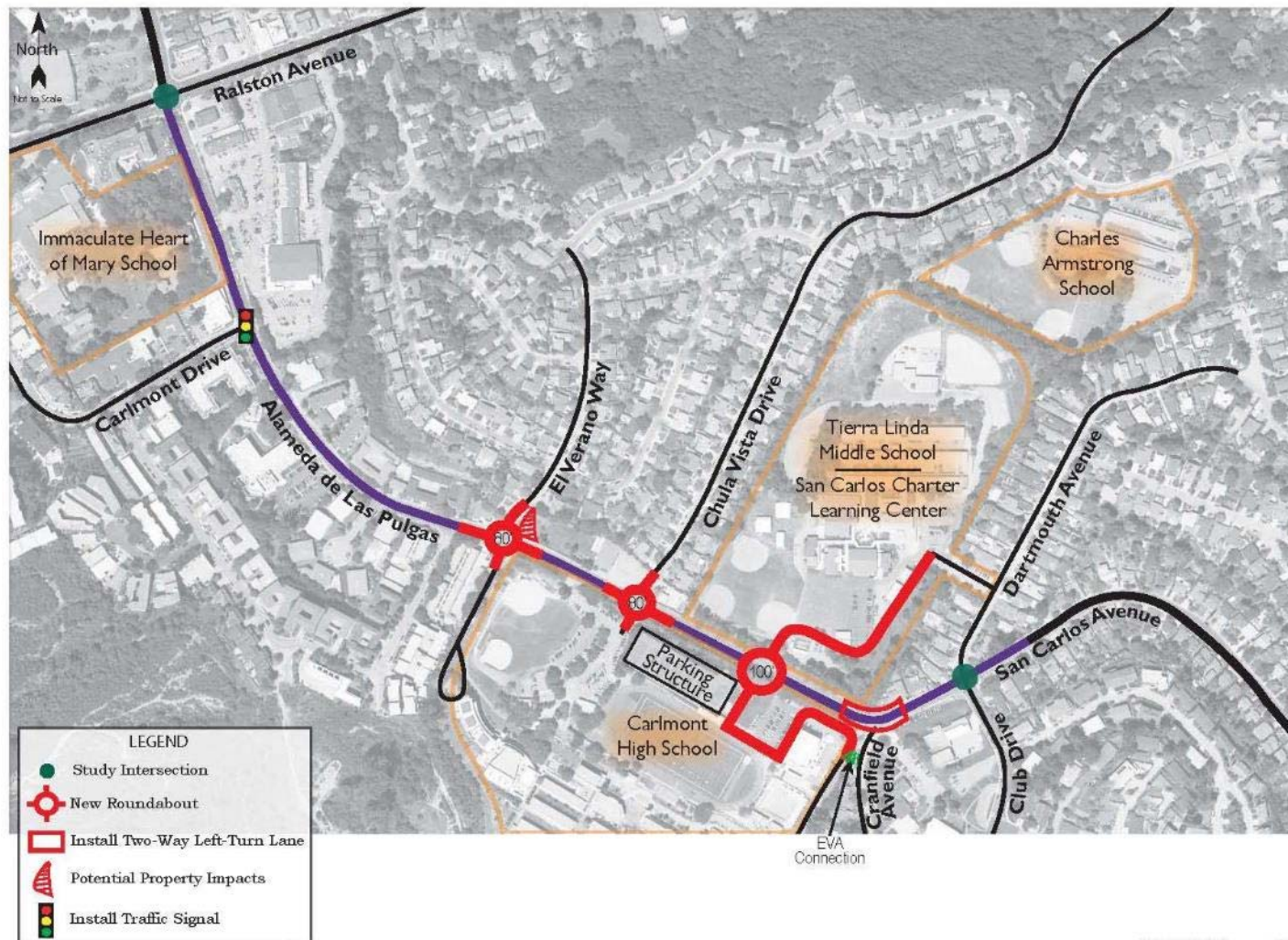


Alameda de Las Pulgas-San Carlos Avenue Corridor Study
Access Alternative #2A

003sca Oct. 2014.ai 10/14



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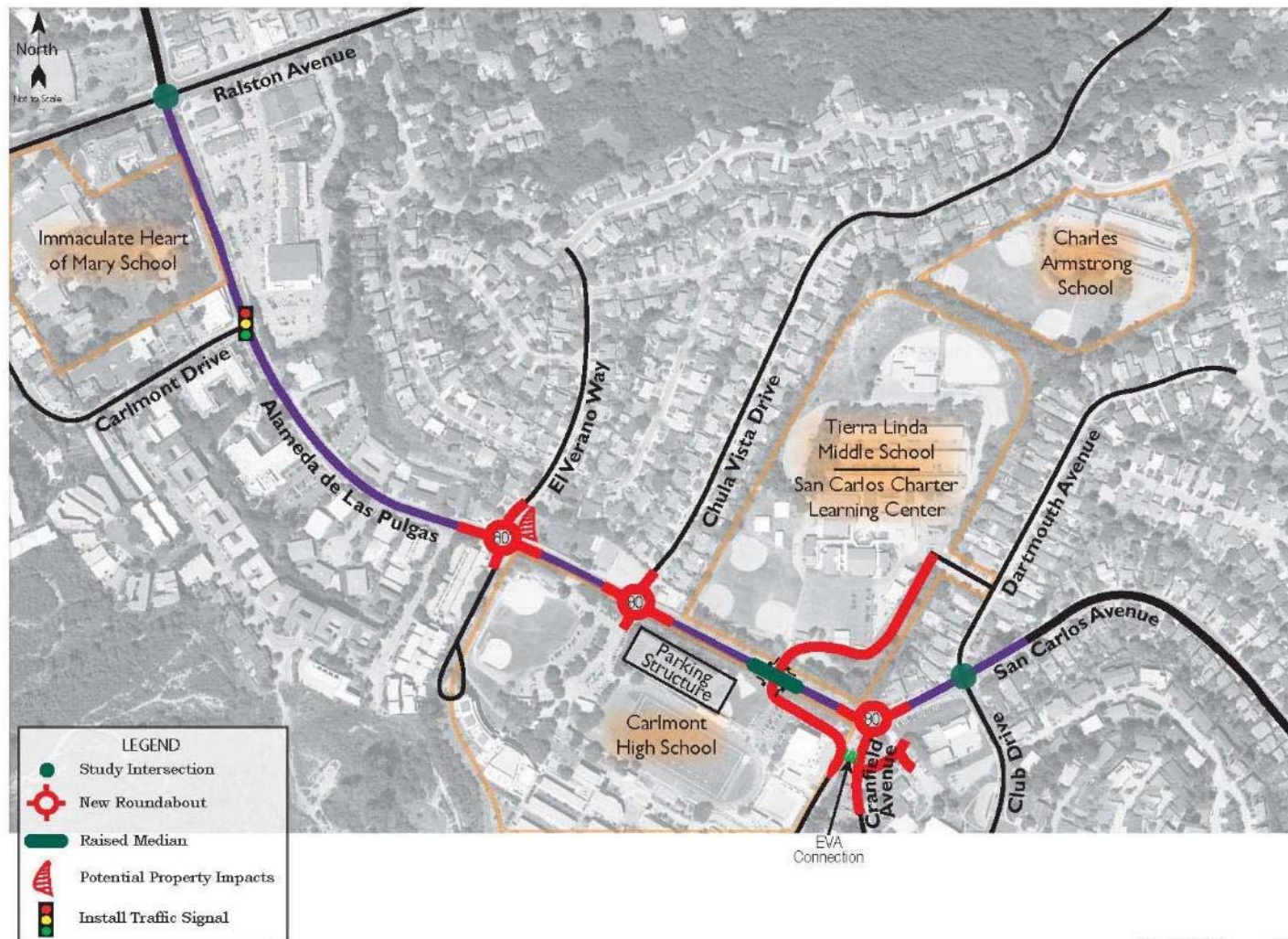


Alameda de Las Pulgas-San Carlos Avenue Corridor Study
Access Alternative #2B

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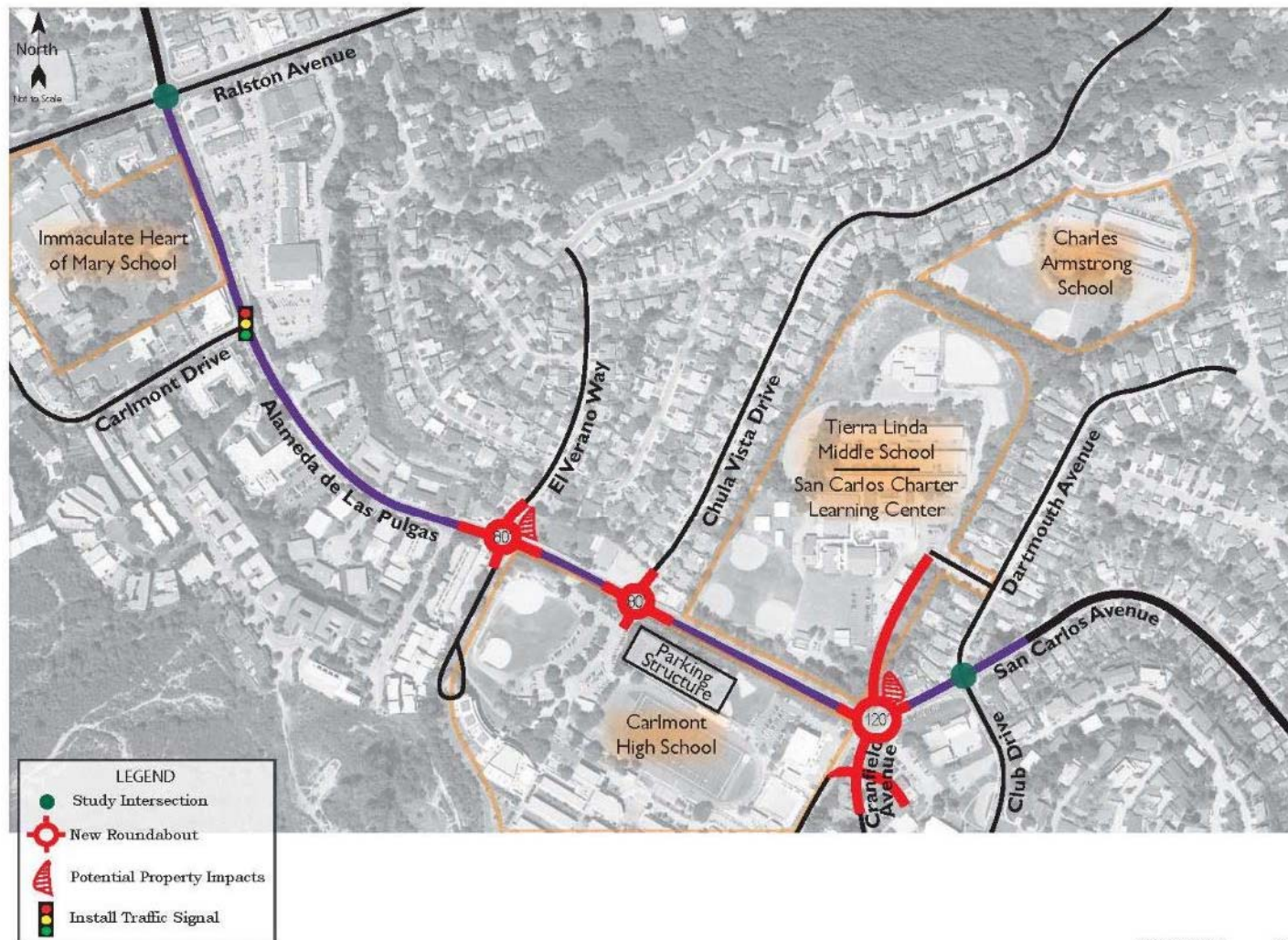


Alameda de Las Pulgas-San Carlos Avenue Corridor Study
Access Alternative #3A

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FOUR CORNERS TRAFFIC STUDY

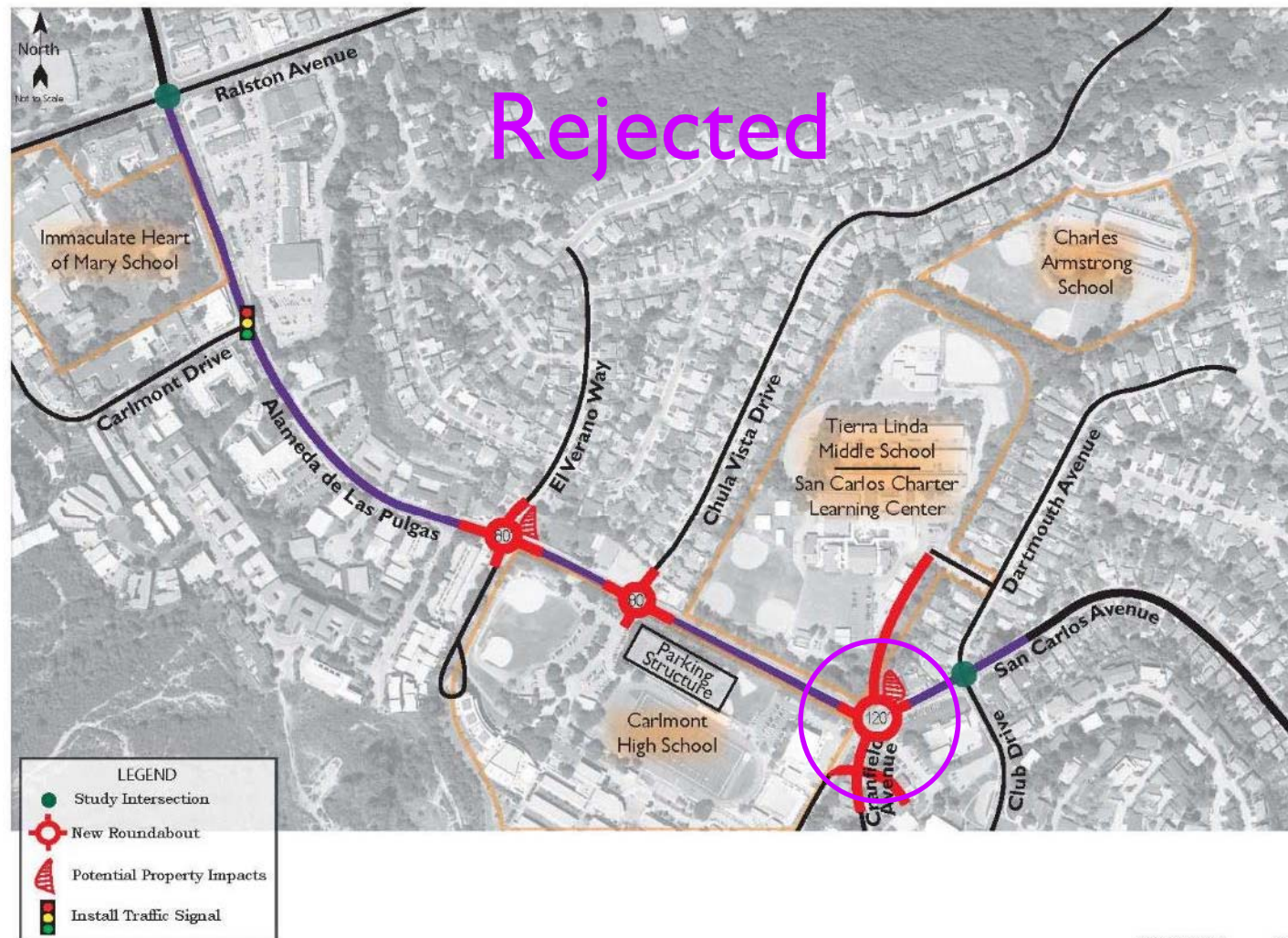


Alameda de Las Pulgas-San Carlos Avenue Corridor Study
Access Alternative #1

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FOUR CORNERS TRAFFIC STUDY



Alameda de Las Pulgas-San Carlos Avenue Corridor Study
Access Alternative #1

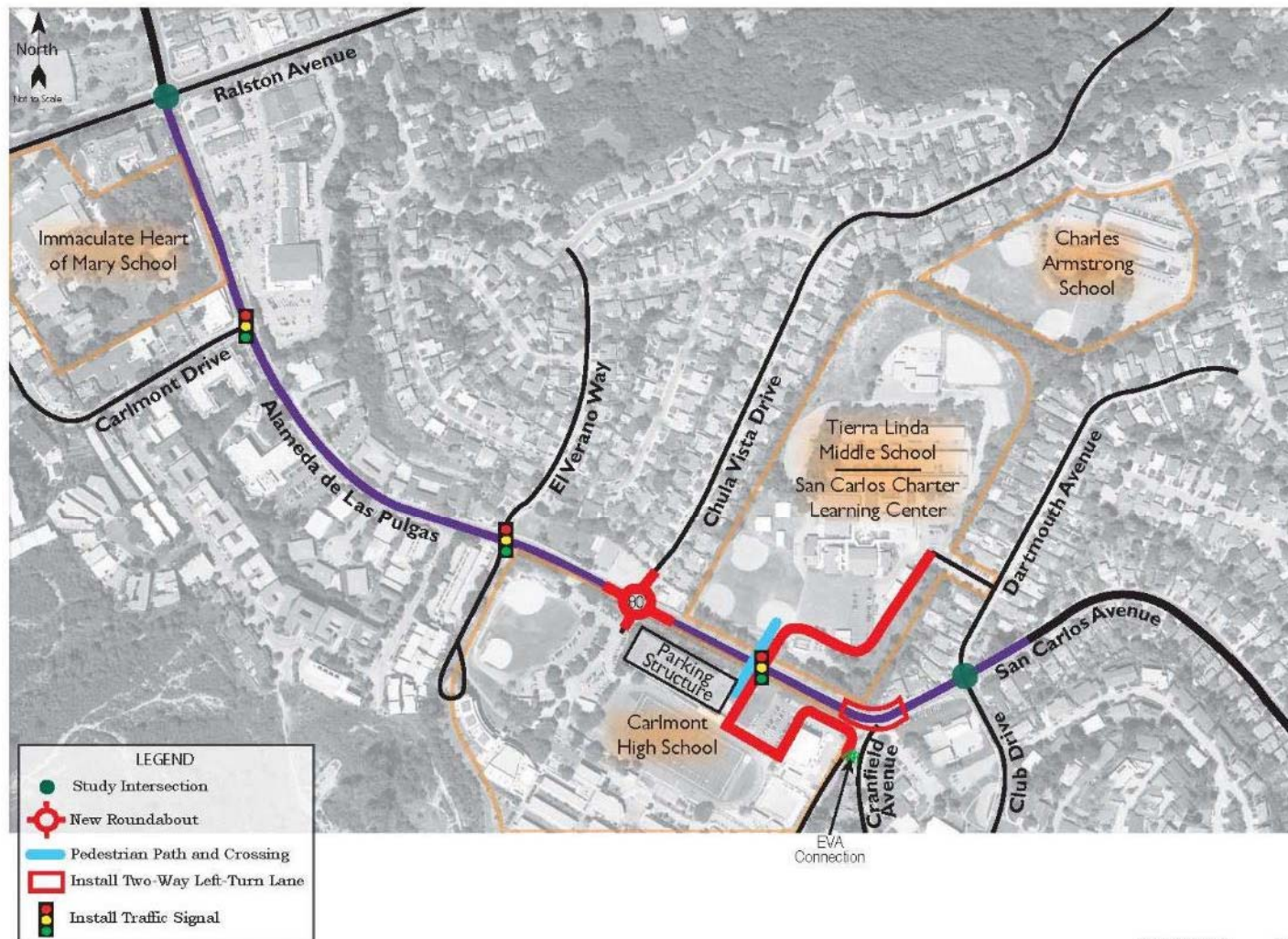
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FOUR CORNERS TRAFFIC STUDY

ALTERNATIVE 1 – TRAFFIC SIGNAL ENTRANCE
ALTERNATIVE 2 – ROUNDABOUT ENTRANCE
ALTERNATIVE 3 – MEDIAN ENTRANCE

ALTERNATIVE I – TRAFFIC SIGNAL ENTRANCE



Alameda de Las Pulgas-San Carlos Avenue Corridor Study
Access Alternative #2A

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ALTERNATIVE I – TRAFFIC SIGNAL ENTRANCE



AERIAL - Alameda de las Pulgas/San Carlos Avenue Corridor Plan

ALTERNATIVE I – TRAFFIC SIGNAL ENTRANCE

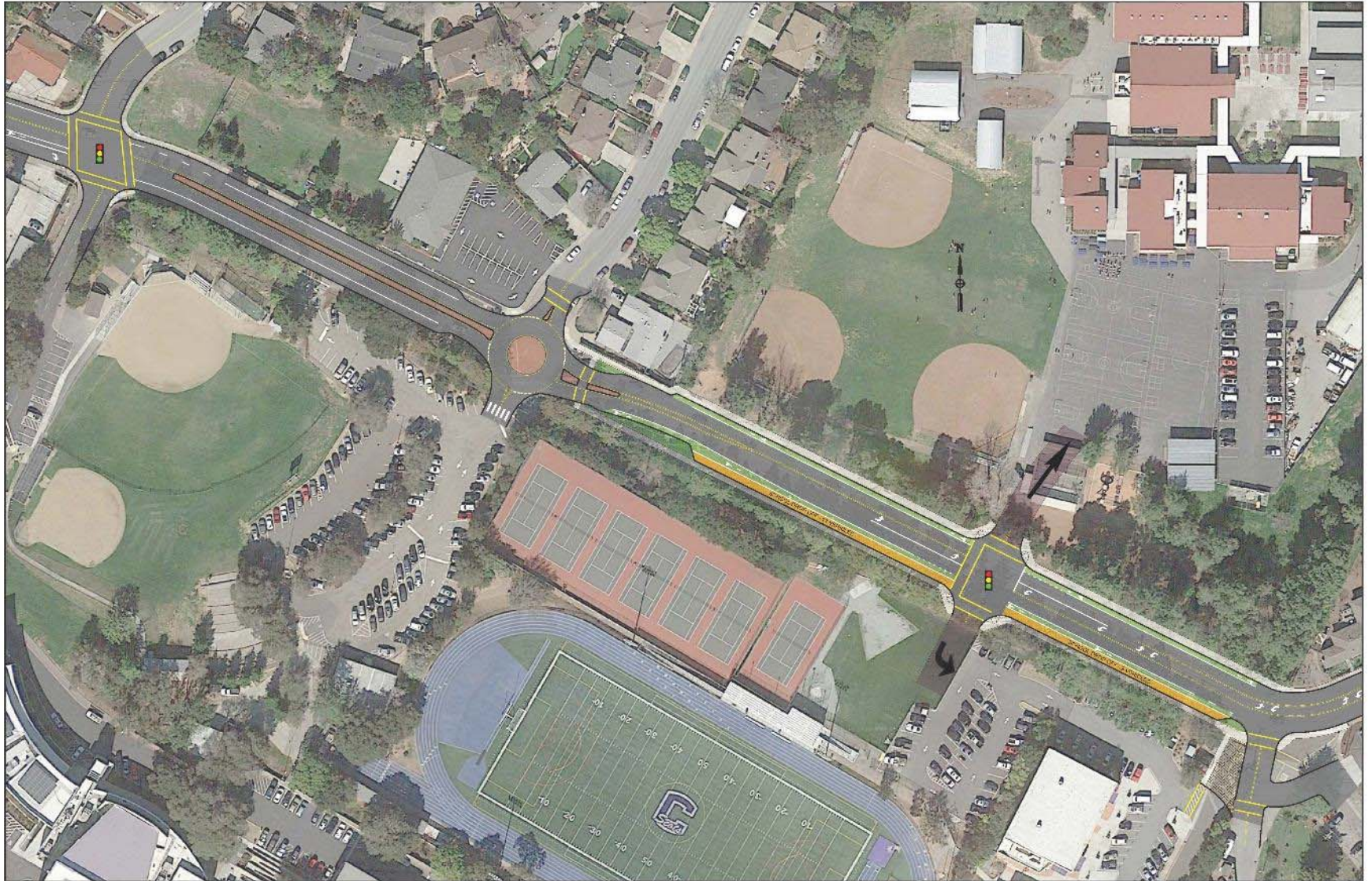


EXHIBIT 1 - Alameda de las Pulgas/San Carlos Avenue Corridor Plan

No bike lanes

ALTERNATIVE I – TRAFFIC SIGNAL ENTRANCE

- Existing Parking – 34 spaces
- Proposed Parking – 0 spaces
- Drop off Space – 20 vehicles
- New 8 ft sidewalk on TLMS side
- Widening on TLMS side = 12 feet
- Bike Lanes Maintained



ALTERNATIVE I – TRAFFIC SIGNAL ENTRANCE

Benefits

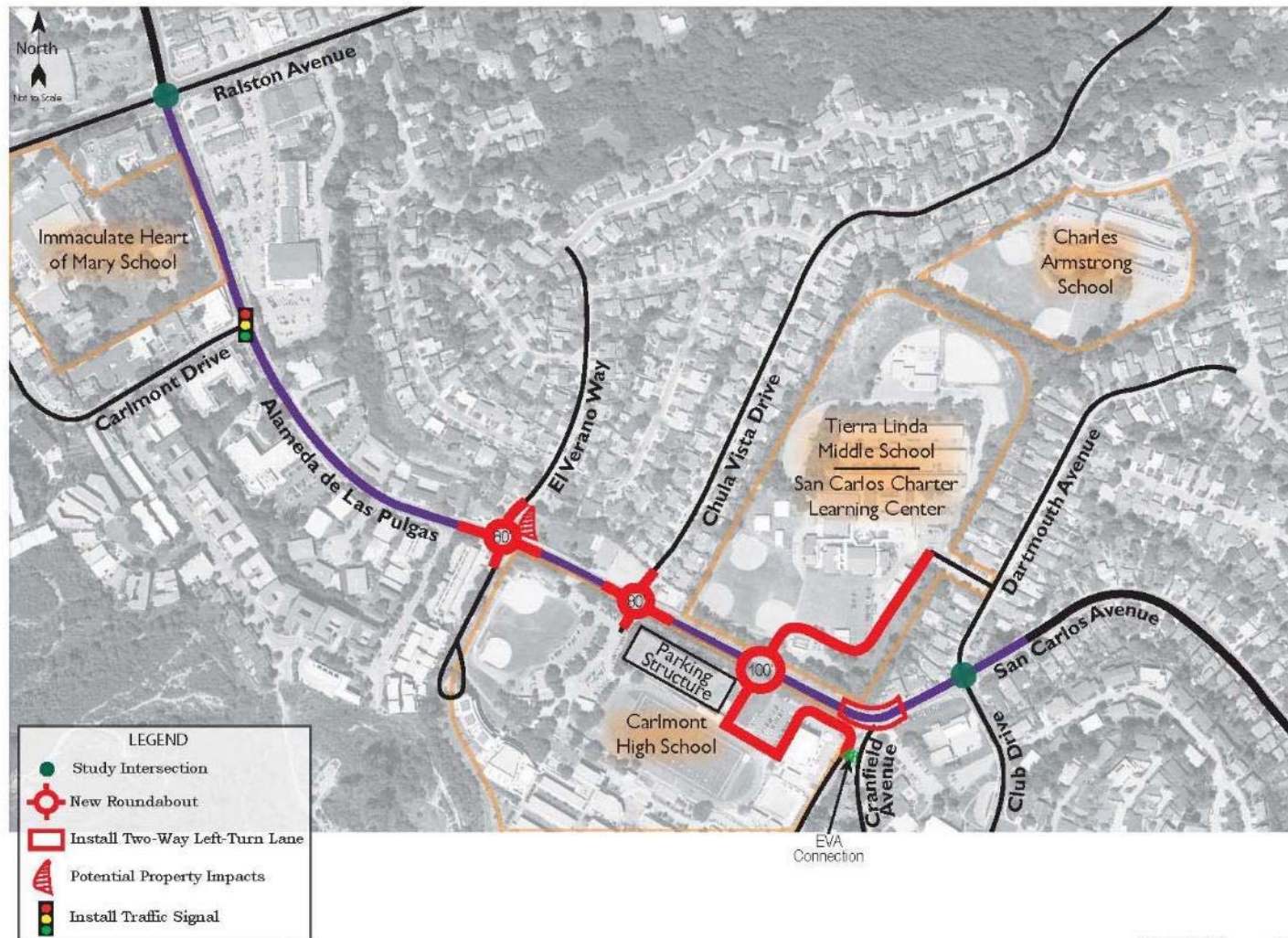
- Standard traffic signal operation
- New drop off space
- Signalized crossing for pedestrians
- Less bike conflicts
- Simplification of Cranfield

Drawbacks

- Signal on green with school out
- No on-street parking
- No directional flexibility for drop off
- School districts must directly align their access points



ALTERNATIVE 2 – ROUNDABOUT ENTRANCE



Alameda de Las Pulgas-San Carlos Avenue Corridor Study
Access Alternative #2B

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ALTERNATIVE 2 – ROUNDABOUT ENTRANCE



AERIAL - Alameda de las Pulgas/San Carlos Avenue Corridor Plan

ALTERNATIVE 2 – ROUNDABOUT ENTRANCE



EXHIBIT 2 - Alameda de las Pulgas/San Carlos Avenue Corridor Plan

FIGURE 2-11-2115

Existing bike lanes

ALTERNATIVE 2 – ROUNDABOUT ENTRANCE

- Existing Parking – 34 spaces
- Proposed Parking – 16 spaces
- Drop off Space – 0 vehicles
- New 8 ft sidewalk on TLMS side
- Widening on TLMS side = 8 feet
- Bike Lanes Maintained



ALTERNATIVE 2 – ROUNDABOUT ENTRANCE

Benefits

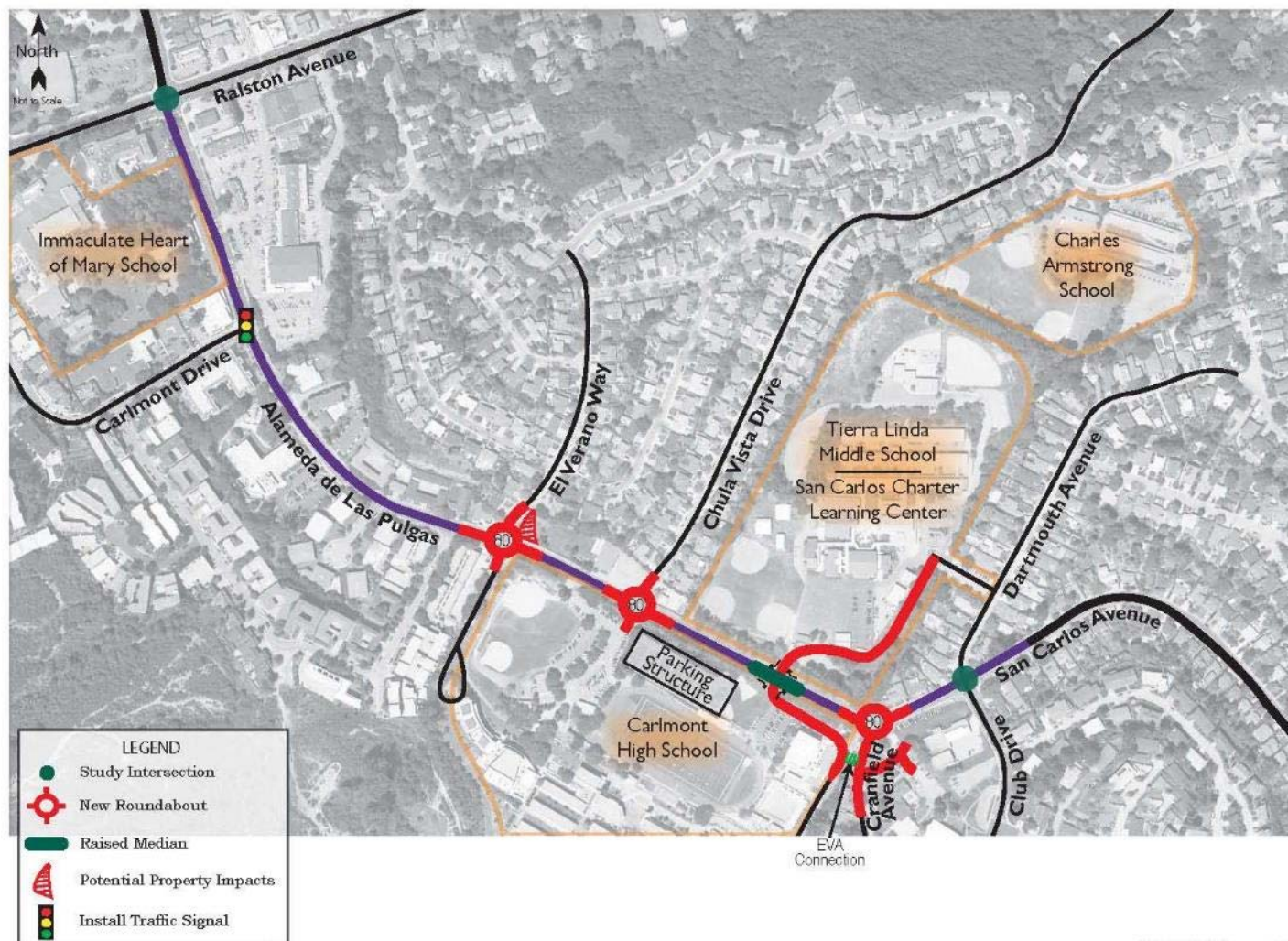
- Less queuing from roundabout
- Slower speeds
- Slow veh speed at ped crossing
- Simplification of Cranfield

Drawbacks

- Bike conflicts with diagonal parking
- No drop off area
- Significant cost for only school time operation
- School districts must slightly align their access points



ALTERNATIVE 3 – MEDIAN ENTRANCE



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Alameda de Las Pulgas-San Carlos Avenue Corridor Study
Access Alternative #3A



ALTERNATIVE 3 – MEDIAN ENTRANCE



AERIAL - Alameda de las Pulgas/San Carlos Avenue Corridor Plan

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ALTERNATIVE 3 – MEDIAN ENTRANCE



EXHIBIT 3 - Alameda de las Pulgas/San Carlos Avenue Corridor Plan

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Maintains bike lanes

ALTERNATIVE 3 – MEDIAN ENTRANCE

- Existing Parking – 34 spaces
- Proposed Parking – 12 spaces
- Drop off Space – 19 vehicles
- New 8 ft sidewalk on TLMS side
- Widening on TLMS side = 16 feet
- Bike Lanes Maintained



Existing Parking = 34 Proposed Parking = 12 Drop Off Space = 19
Widening = 8 feet on TLMS side + 8 ft sidewalk
Maintains bike lanes

ALTERNATIVE 3 – MEDIAN ENTRANCE

Benefits

- Directional flexibility with school drop off
- School districts don't have to align access points
- New drop off space
- Refuge island for ped xing
- No turning vehicles for ped xing
- Less bike conflicts
- Less delay for Cranfield



Drawbacks

- Loss of on-street parking
- Extra driving for left-turn access to schools
- Drivers may be unfamiliar with roundabouts

FOUR CORNERS TRAFFIC STUDY

Workshop Public Input

- Questions and Answers
- Dot exercise – Components of each Alternative
- Vote on your favorite Alternatives
- Comment cards – Rank the 3 alternatives

FOUR CORNERS TRAFFIC STUDY

Next Steps

- Working with Cities and School Districts to Determine Preferred Alternative
- Refine Preferred Alternative and Finalize Analysis
- Prepare Final Report



AERIAL - Alameda de las Pulgas/San Carlos Avenue

Printed March 11, 2012